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INFORMATION AND COMMUNICATION TECHNOLOGY IN OPEN AND DISTANCE LEARNING: MAKING IT WORK FOR ADULT LEARNERS

Abstract

Adult learners have long been a part of the market for higher education but in recent years, this segment has grown in importance due to the increasing complexity and volatility of local and global economies. Open and distance learning (ODL) enables adult learners to pursue higher education and improve their work competencies while remaining in employment. The mainstay of an ODL environment is information and communication. Learners rely on technology to access the learning they desire. They can log on to their class any time, anywhere, and communicate with tutors and other learners, both synchronously and asynchronously. This model of learning opens up opportunities to potential learners who may be located in rural and remote environments or juggle multiple commitments. For Open University Malaysia (OUM), Malaysia's premier ODL institution, it is through ICT that it able to continuously develop and enhance its delivery system as well as its support services for learners, both within and outside the country. This is in line with OUM's vision to be a leading provider of flexible learning and to promote the democratisation of education.

1. Introduction

Open and distance learning (ODL) combines traditional learning, where tutors and learners work face to face, with online learning, where learners work from home or a remote location using the Internet, e-mail and a learning management system or virtual learning environment. In an ODL environment, learners leverage on technology to access the learning they desire, irrespective of their financial background, age, gender and rank. They can log on to their class any time, anywhere, and communicate with tutors and other learners, both synchronously and asynchronously. This model of learning opens up opportunities to potential learners who may be located in rural environments or war zones, or who need to juggle careers and look after families while pursuing studies.

As homes, workplaces and marketplaces become increasingly wired, as the power and connectivity of desktop, laptop, and palmtop devices grows, and as the communities of connected people increase globally, adult learners too are experiencing a radical shift in the way they access and acquire information. In line with this, information and communication technology (ICT) is increasingly being developed to cater to the needs of adult learners.

With the latest technologies, ODL institutions have gained a firm foothold in the global higher education scene, and with newer technologies, they can explore new modes of teaching, transform curricula, invent media-rich forms of content that can suit different learning styles and leverage on technologies as platforms for collaboration. In ODL, it is clear that technological innovations hold the key to further advancements in reaching out to adult learners.

Many higher education institutions today, not merely those operating in ODL, have, to varying degrees, adopted different ICT tools in their daily operations. The pervasiveness of technologies in higher education means that they can influence every aspect of a learner's educational experience; from the moment of registration to the moment of graduation.

For an ODL institution like Open University Malaysia (OUM), ICT is the mainstay of educational provision. In the past 10 years of operations, OUM has cumulatively enrolled more than 100,000 learners in academic programmes delivered through a blended pedagogy using various technologies to complement teaching, learning and campus administration as well. Thus far, more than 36,000 learners have graduated; a testimony not only to the viability of ODL but also to the effectiveness of ICT in a higher education environment.

This paper will explore how OUM caters to its learners, the majority of whom are working adults, through the utilisation of ICT. OUM has made major accomplishments in the realm of ODL due to its significant use of ICT products and services. In fact, ICT has become fully integrated into the university's learner-centred approach.

2. Using ICT to Cater to Adult Learners

That technologies have had a profound impact in higher education is accurate for ODL institutions. In recent years, this can be seen in developments such as learning and content management systems, multimedia-rich course materials, virtual libraries and collaborative tools like Wiki. These innovations facilitate different learning styles, foster creativity and encourage cooperation between academics, learners and their peers. Daily administrative processes have also benefited from ICT – many ODL institutions now use ICT applications to administer assessment, monitor learner activity, keep records as well as manage queries and complaints.

ODL learners study at their own time, attending tutorials or interacting with their tutors and lecturers only occasionally. Because many of them are working adults who juggle multiple responsibilities, these learners must catch up on reading materials and assignments, perform self-assessment or prepare for examinations on their own and in their own time. ICT, particularly web-based innovations, allows these learners easy access to study materials, tutors and the university at all times without having to physically go to the campus.

Tutors assume a more facilitative, rather than instructive, role. They help learners to construct their own thoughts and opinions from the information provided. In essence, the learner becomes the centre of the educational process. Thus, ICT assumes a greater role in the entire process as well.

An effective ODL programme has materials and resources that are easily accessible and usable, stable networks and infrastructure to facilitate asynchronous communication

(e.g. e-mail service, online forums) as well as creative applications to support different learning styles and provide a platform for interaction.

3. ICT – Making it Work for OUM Learners

Ever since it was first set up in 2001 offering just four programmes to 753 learners, it has grown by leaps and bounds and now boasts more than 50 programmes and a cumulative enrolment of over 100,000 learners. The number of graduates has surpassed 36,000. As the pioneer and leading provider of flexible learning in the country, OUM's vision is to "widen access to quality education and provide lifelong learning opportunities by leveraging on technology, adopting a flexible mode of learning and providing a conducive and engaging learning environment at affordable cost."

OUM offers a blended mode of pedagogies which includes self-managed learning, face-to-face tutorials and online learning. The most important element in the online learning model is myVLE (my Virtual Learning Environment). It provides all the online learning resources needed for learners including web resources, web modules, online forums and personalised timetables. Learners are able to interact with their tutors or coursemates through the online forums. Because learners do most of their studying independently, it provides the necessary support and guidance to help make this an interesting, engaging and enriching experience.

All of OUM's courses are complemented with rich web-based content, including downloadable PDF modules, topic-specific forums, frequently asked questions and resources such as learning objects and links to collections in the university's digital library.

Print modules are the main mode of delivery. However, study materials are also made available in other formats, such as online or **web-based modules**. These modules come with interactive web pages and hyperlinks to e-learning resources, with hover-boxes to explain terminology, self-access quizzes for learners to try out and links to resources such as YouTube videos and audio files.

As OUM goes global collaborate with other educational institutions in other countries like Yemen, Bahrain, the Maldives and Ghana, it is viable to use web-based modules as these are highly portable and interactive, therefore inviting more active participation from the learners. Thus far, more than 200 such modules have been made available through myVLE. Research has shown that they are well-received by a large segment of OUM learners.

Through myVLE, learners can also access e-resources such as **iBooks**, **iTutorials**, **iLectures** and **iRadio**. Introduced in 2007, iRadio (Internet Radio) broadcasts infotainment segments based on print modules and live interviews with subject matter experts. It also provides audio learning materials for visually impaired learners. With features such as **podcasts** via the iCast website, these segments can be downloaded into any computer or handheld media player. Learners can receive updates on the latest contents by subscribing to the iCast Really Simple Syndication (RSS) feed. Web 2.0 applications like social networking tools such as **Facebook** and **Twitter** have been incorporated into iRadio.

iRadio is making its mark not just in Malaysia alone. OUM has collaborated with the Maldives' Ministry of Education to bring iRadio Maldives on air. With support from the

Commonwealth Educational Media Centre for Asia (CEMCA), OUM provided knowledge and technical support to the Maldivian team, including training their members on broadcasting technologies, applications and software as well as developing programmes, segments and scripts. iRadio Maldives was launched in December 2009.

India's Central Institute of Educational Technology (CIET) in New Delhi, with support from CEMCA and the Commonwealth of Learning, also launched its own version of iRadio known as "Umang on www" in June last year. Just as with the Maldives project, OUM provided knowledge, expertise and technological support to CIET.

To ensure that adult learners benefit from technological advancements in education, innovations are constantly being made. One such innovation is **mobile learning**. It was piloted to about 2,000 learners in May 2009 for one of OUM's core courses, *Learning Skills for Open and Distance Learners*. Mobile learning was integrated to offer learners more learning opportunities (Anuwar Ali, 2009). Each learner with a registered telephone number received two to three short text messages per week during the entire semester. The messages were in the form of small chunks of content, reminders and motivational phrases. Learners were so receptive to this new technology that the university added two more courses, *Company Law* and *Renal Nursing* to the mobile learning initiative towards the end of 2009.

Online resources are also provided for learners to improve their grasp of certain difficult subjects. For example, the **Mathematics Resource Centre (MRC)** and **Electronic Gateway to English Resources (e-GATE)** were launched in 2009 and 2010 respectively. MRC provides learners keen to improve their Mathematical skills with online supplementary notes, practice problems, interactive tutorials and links to other Mathematics sites as well as a round-the-clock, free online tutoring service. Since its launch, it has garnered over 100,000 page views and is a hit with learners, tutors and faculty members alike. E-GATE is specially geared to meet the needs of learners keen to hone their English language skills. It attracts learners from all over the world and has links to **Facebook** and **Twitter** as well.

These resources are user-friendly, interactive and promote active learning. It is partly due to the success of these innovations that OUM has been able to spread its wings abroad, offering programmes through partnerships with educational institutions such as the Arab Open University in Bahrain; University of Science and Technology in Yemen; Villa College in Maldives; and Accra Institute of Technology in Ghana, Africa.

The University also shares some of its learning resources online with the general public via its Open Educational Resources (OER) initiative, which helps efforts to democratise education. Licensed under Creative Commons, the learning materials include content for *Learning Skills for Open and Distance Learners* and *Basic Mathematics*. In due time, more content will be developed and added.

To ensure quality teaching and learning, OUM employs more than 8,500 tutors who conduct face-to-face tutorials at the 48 learning centres situated in major locations nationwide. Tutors conduct the tutorials four times a semester while e-tutors interact with learners via online forums. Learners are able to submit assignments online via myVLE. For quality control, the assignments are run through a **Similarity Checker System** to detect plagiarism.

There is also a Quality Unit within IQRI that is responsible for monitoring and steering quality assurance efforts at OUM. This includes ensuring that the university's

academic programmes obtain accreditation from the Malaysian Qualifications Agency and recognition from the country's Public Services Department, ensuring that the processes and procedures of SIRIM certified departments meet MS ISO 9001:2008 standards, and inculcating a culture of quality among staff. These steps instil confidence in the learners that OUM's programmes are not only learner-friendly but also recognised by the relevant authorities.

Interaction between learners and the university is critical for effective learning. To ensure that the university keeps its lines of communication with learners open, the **e-Customer Relationship Management (e-CRM) System** was introduced as a one-stop mechanism to facilitate learner enquiries. Built into myVLE, e-CRM allows learners to submit questions, compliments, complaints and suggestions, and track the progress of their posts at their convenience, without having to come to the university or to even make a telephone call. Every enquiry is automatically forwarded to the relevant personnel and the turnaround time is from three to seven days. Since its introduction in 2009, e-CRM has become an important component in OUM's learner retention efforts.

4. Conclusion

In today's technology-driven world, higher education will be reinvented in the light of technological tools and applications; a phenomenon that is perhaps most true in an ODL environment. OUM has proven that it is highly beneficial for an ODL institution to leverage on technologies to cater to the needs of adult learners.

The potential for creativity and innovation is great – in terms of what innovations to explore and how to use them to enrich adult learners' educational experiences. Ultimately, ICT is a very useful means to provide quality education for adult learners.

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